

acceptance of stroke prophylactic treatment. Interestingly, no single patients characteristics changed the fact that AF patients were willing to accept a non-zero risks of bleeding in exchange for prevention of disabling strokes.

## PCV103

## DEVELOPMENT OF A NEW QUESTIONNAIRE TO MEASURE SATISFACTION WITH MEDICAL CARE IN PATIENTS WITH ATRIAL FIBRILLATION (SAFUCA)

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**OBJECTIVES:** To assess item analysis and dimensional validity of a new questionnaire developed to measure Satisfaction with medical care in patients with atrial fibrillation, in order to accomplish item reduction. **METHODS:** The initial instrument was composed by 37 items, arranged in 6 dimensions: 1- Efficacy (4 items), 2- Ease and convenience (7 items), 3- Impact on daily activities (11 items), 4- Satisfaction with medical care (6 items), 5- Medication undesired effects (6 items), and 6- Overall satisfaction (4 items). Items and dimensions were extracted from reviewing previous English instruments, 3 focus groups with chronic patients, and a panel composed by 8 experts. Additionally 3 Visual Analog Scales (VAS) measuring Quality of Life, Effectiveness and Overall Satisfaction were applied. A convenience sample of 118 patients was used. Classic psychometric theory item analysis techniques, exploratory factor and confirmatory factor analysis, test-retest and correlation with VAS scales were used. **RESULTS:** The questionnaire was reduced in length to 25 items, but the Impact dimension had to be divided in 2 dimensions: Treatment inconvenience and Treatment Control. The reduced version presents an overall Cronbach alpha of 0.861, with acceptable dimensional reliabilities (0.764–0.908). Individual dimensions were well formed and correlated in different degrees, being the dimension of Satisfaction with medical care the most independent one. Test-retest correlations were high (0.784–0.965) and correlations with VAS scales were meaningful. **CONCLUSIONS:** The 25-item questionnaire shows good reliability and validity to assess satisfaction with medical care in patients with atrial fibrillation. Further research is needed to examine if the questionnaire could be generalized to different populations of patients with atrial fibrillation.

## CARDIOVASCULAR DISORDERS - Health Care Use &amp; Policy Studies

## PCV104

## RELATIONSHIP BETWEEN COMORBIDITIES, BLOOD PRESSURE CONTROL AND THERAPEUTIC SCHEMES IN REAL-LIFE SETTING HYPERTENSIVE PATIENTS

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**OBJECTIVES:** To describe demographical and medical characteristics of patients treated with bi- or multi- antihypertensive therapies and to outline the link between therapeutic scheme, blood pressure control and patients co morbidities. **METHODS:** A retrospective study was undertaken, based on the IMS Lifelink Electronic Medical Records database (Disease Analyzer), investigating age, gender, blood pressure control and co morbidities according to the number and type of associated antihypertensive therapies. **RESULTS:** A total of 13,618 patients, treated by bi- or multi- antihypertensive therapies and for whom blood pressure levels were available have been included in a 2008 study cohort (mean age = 66.8, 48% men). Respectively 39% and 58% of patients had a controlled blood pressure depending on the threshold of the control (<140/90 or ≤140/90), showing the importance of the precise threshold in real-life. Respectively 1.5% and 0.3% of patients had a blood pressure of over 160/100 and over 180/110. Significantly more patients (p < 0.05) have a controlled blood pressure under tri-therapy (41.6%/64.2% according to the two previous thresholds) rather than under bi-therapy (37.9%/57.8%), but no control difference is seen in patients treated by tri-therapy vs 4 or more. 59.4% of patients have at least one cardiovascular, renal or diabetic co morbidity; a statistical link has been shown between the patient number of co morbidities and the number of associated antihypertensive drugs in the treatment scheme. **CONCLUSIONS:** The number of antihypertensive associated in a treatment scheme increases with the patient co morbidity level. Despite the use of bi- or multi-therapies, Sixty-one percent of patients who are being prescribed several antihypertensive drugs do not have a controlled blood pressure (>=140/90); prescribing 4 or more associated antihypertensive does not seem to increase the percentage of controlled patients.

## PCV105

## THE IMPORTANCE OF A DEFINITION: COST IMPLICATIONS FOR THE UK OF ALTERNATIVE DEFINITIONS OF HYPERCHOLESTEROLAEMIA

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**OBJECTIVES:** Disease definitions can evolve over time, and may be influenced by the prevailing evidence base/understanding of the condition. Without a common definition, significant scope exists for unanticipated impact on the health care system and patients. We investigated this through assessment of primary non-familial hypercholesterolaemia (PN-FH) in UK adults. **METHODS:** The 2007 NICE Technology Appraisal of ezetimibe reported prevalence of PN-FH from two different sources: 1) a 1999 publication reporting prevalence at 4.2%, based on a definition that PN-FH was “responsible for all cholesterol levels above the 95th percentile not accounted for by a familial cause”; and 2) a 2003 article, reporting a range of 20–80%, using a contemporary definition of PN-FH: a cholesterol level above a desirable/recommended level, where familial and secondary causes have been excluded. We

used the older definition (4.2%) and lower bound of the range (20%) to estimate the prevalence of PN-FH in UK adults. Simvastatin 40mg costs and Heart Protection Study (HPS) results were used to estimate drug acquisition costs and number of events prevented. **RESULTS:** At prevalence rates of 4.2% vs. 20%, 2.1m or 9.8m UK adults have PN-FH. Accounting only for those diagnosed and requiring treatment (30% of the population), the 1999 definition (4.2%) estimates 618,940 patients requiring medication vs. 2,947,332 using the lower bound of the modern definition (20%). The respective 5-year (mean follow-up in HPS) drug acquisition costs would vary from £48.0m to £228.6m, and be expected to prevent 9,414 or 44,826 vascular deaths, and 33,301 or 158,575 major vascular events (including 7,241 or 34,481 non-fatal MI's and 8,022 or 38,201 non-fatal strokes). **CONCLUSIONS:** The importance of an accurate and contemporary definition of the condition under investigation is paramount. Alternative rates available to NICE are associated with differences in 5-year drug cost of at least £180m, over 35,000 fewer vascular deaths and 125,000 fewer vascular events.

## PCV106

## AFFORDABILITY OF ANTI-HYPERTENSIVE MEDICATION IN EGYPT UNDER CURRENT REIMBURSEMENT SYSTEMS

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**OBJECTIVES:** Egypt has long been trying to reform health care reimbursement mechanisms. Currently, health care out-of-pocket expenditure in Egypt is almost 72%, with over 30% of total health care expenditure (THE) dedicated to medications<sup>1</sup>. At the same time, hypertension is becoming one of the main killers of Egyptian adults. With an inefficient national scheme for financial protection against chronic illnesses, anti-hypertensive medications are becoming a burden for the Egyptian household budget. This research aims to examine factors affecting affordability of anti-hypertensive medications in Egypt under current reimbursement systems. **METHODS:** This research will use anti-hypertensive drugs sales data as a proxy to identify the pattern of usage of antihypertensive drugs in different regions of Egypt, under the different reimbursement systems (including out-of-pocket). A trend (if any) will be drawn over time, to identify the impact of changing reimbursement policies, and the increase of medication prices on anti-hypertensive drugs usage. For this purpose, we will look into sales/ dispensing data from main health care providers; Ministry of Health & Population (MoHP), Health Insurance Organization (HIO), and retail pharmacies' sales data in the different regions of Egypt. As well as demographic characteristics, health care services delivery models in each region, and the average annual income of individuals. Differences between the different regions of Egypt, & factors affecting them, shall also be highlighted. **RESULTS:** Weak and fragmented health insurance system, leads to a high out-of-pocket drug expenditure, affecting affordability of, & subsequently access to, anti-hypertensive medications. **CONCLUSIONS:** Efficient drug reimbursement systems should be improved to achieve better patient access to chronic illnesses' medication.

## PCV107

## GENERIC ATORVASTATIN, THE BELGIAN STATIN MARKET AND THE COST-EFFECTIVENESS OF STATIN THERAPY

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**OBJECTIVES:** In May 2012, generic atorvastatin has become available in Belgium. This study examines the impact of market entry of generic atorvastatin on Belgian statin market and on cost-effectiveness of statin therapy. **METHODS:** Using IMS Health data, the Belgian 2000–2011 statin market was analyzed in terms of total expenditure, annual price of statin treatment, and number of patients. Also, a simulation analysis projected market shares in the Belgian statin market from 2012 to 2015 following market entry of generic atorvastatin. This analysis was based on three scenarios regarding the number of patients taking specific statins. Savings associated with an atorvastatin price reduction of 50%–70% were calculated. A literature review of economic evaluations was conducted to assess the cost-effectiveness of generic atorvastatin. **RESULTS:** Statin expenditure more than doubled from €113 million in 2000 to €285 million in 2011, mainly as a result of higher expenditure on atorvastatin and rosuvastatin. Although the number of patients treated with simvastatin increased by nearly 800% during 2000–2011, the resulting increase in expenditure was partially offset by price reductions due to generic competition and a simvastatin tender. The simulation analysis indicated that atorvastatin will become the dominant product in the Belgian statin market (market share by expenditure of 47%–66% by 2015). Annual savings were projected to attain €108.6–€153.7 million for a 50% reduction in the atorvastatin price and €152.0–€215.2 million for a 70% price reduction. The literature suggests that generic atorvastatin is cost-effective as compared to simvastatin and becomes more cost-effective at higher daily doses. The limited evidence about the cost-effectiveness of rosuvastatin as compared with generic atorvastatin is inconclusive. **CONCLUSIONS:** Generic atorvastatin is cost-effective as compared to simvastatin, is projected to become the dominant product in the Belgian statin market and is expected to generate substantial savings to health care payers.

## PCV108

## ANALYSIS OF OUTPATIENT UTILIZATION AND COSTS OF ANTITHROMBOTIC DRUGS IN POLAND – IMPLICATIONS FOR PHARMACEUTICAL PRICING AND REIMBURSEMENT POLICY

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